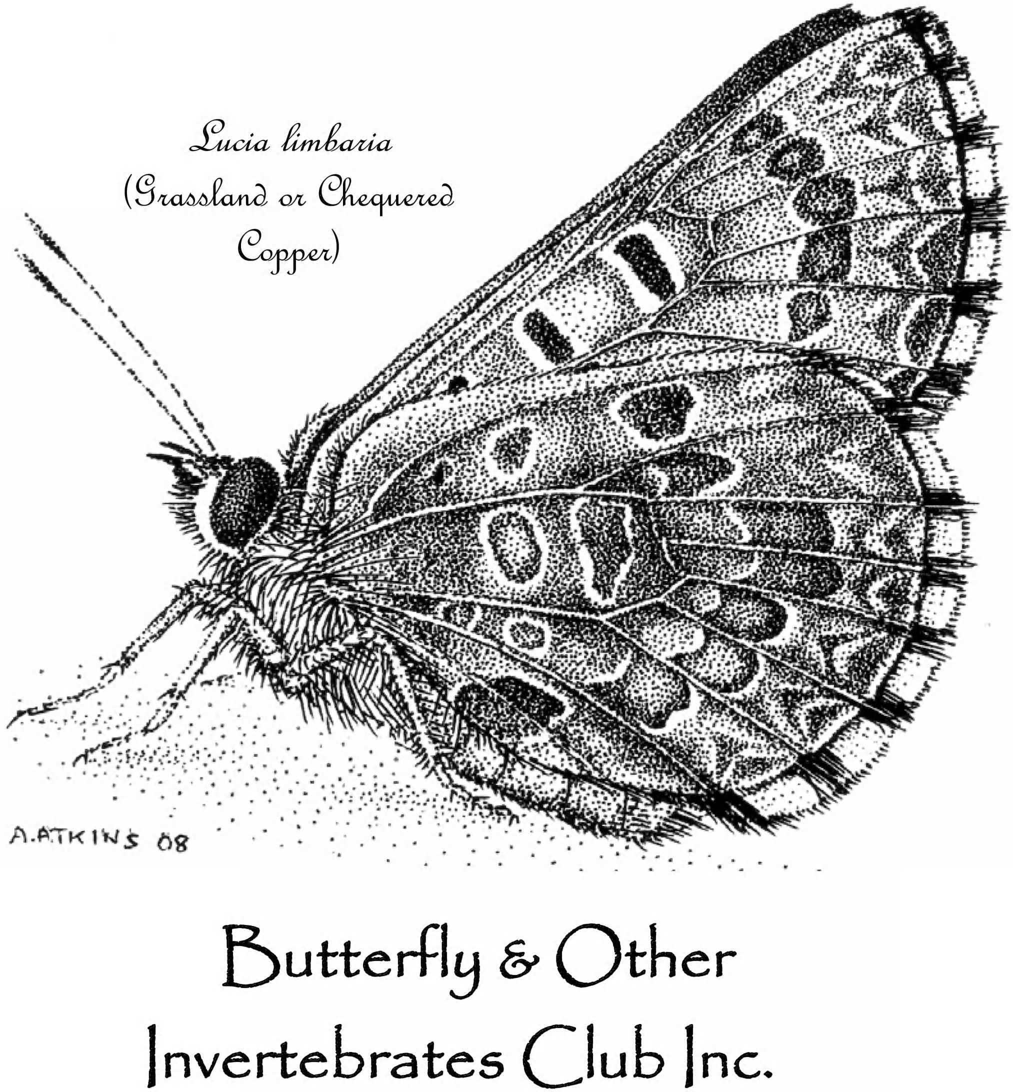
Lucia limbaria
(Grassland or Chequered
Copper)

Butterfly & Other Invertebrates Club Inc. Newsletter

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Club Planning and Organizing Group - 2007

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Planning and Organization Meetings

A quarterly meeting is scheduled in order to plan club activities and the newsletter. See BOIC Programme.

Contact Address and Membership Details

PO Box 2113, Runcorn, Queensland 4113

Membership fees are $15.00 for individuals and $20.00 for families, schools and organizations.

Aims of Organization

- To establish a network of people growing butterfly host plants;
- To hold information meetings about invertebrates;
- To organize excursions around the theme of invertebrates e.g. butterflies, native bees, ants, dragonflies, beetles, freshwater habitats, and others;
- To promote the conservation of the invertebrate habitat;
- To promote the keeping of invertebrates as alternative pets;
- To promote research into invertebrates;
- To encourage the construction of invertebrate friendly habitats in urban areas.

Newsletter Deadlines

If you want to submit an item for publication the following deadlines apply:
March issue – February 21st
June issue – May 21st
September issue – August 21st
December issue – November 21st

Cover Drawing

Lucia limbaria (Grassland or Chequered Copper) by Andrew Atkins

FROM THE PRESIDENT

I am sure that even before reading this report you will have already noticed a significant change in the presentation of the club's newsletter. The considerable use of colour aims to enhance the quality of the various articles and to portray the various invertebrates in their "true colours." The Club acknowledges the generous support of the Brisbane City Council as its recent provision of an environmental grant of $1,600.00 aims to help offset the extra cost of printing. We invite you to send your comments on the new presentation.

I wish to thank Daphne Bowden for taking on the challenges of preparing the colour-laden newsletter with her usual calm efficiency and patience. The value of her contribution of time and skills is immeasurable.

The Club has recently benefited from a grant of $9,300.00 from the Gambling Community Benefit Fund and I hereby acknowledge their generous support. Elsewhere in this newsletter we give details of a microscope and digital camera assembly already purchased. I can report that we have just taken delivery of a Toshiba laptop computer, a Panasonic data projector, a portable projection screen and a set of speakers all of which were also funded by this grant.

(contd. p. 7)

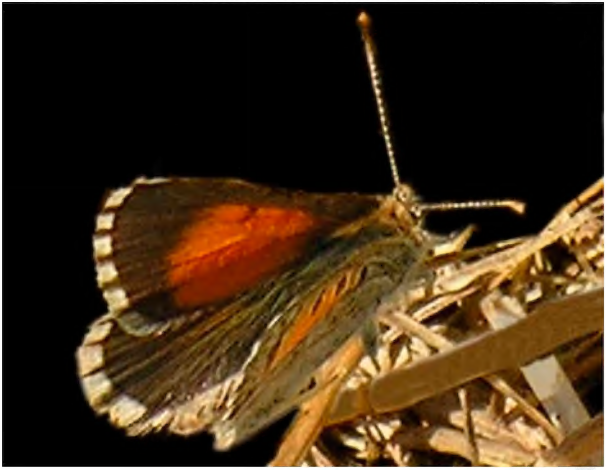
IN THIS ISSUE

Notes on the Grassland or Chequered Copper (*Lucia limbaria*) 4
Further notes on the Small, Grassland or Chequered Copper (*Lucia limbaria*) 7
Club microscope and camera equipment 8
At the Light Trap 9
Australian Native Bees #13 - War and Peace - Part I 11
In the Garden with Peter 14
A "new" host plant for the Black Jezebel (*Delias nigrina*) 15
Host Plant Book Update 17
Excursion to Ross Kendall's home for the Flight Cage Extravaganza - 9.2.08 18
Butterflies at Hinterland Regional Park 21
You Asked - *Eudocima fullonia* larva 25
Seed Bank News 25
Alphabet Poster 26
Letters - Tailed Emperor (*Polyura sempronius*) 26
Feeding patterns of *Hypochrysops* sp. larvae 27
Ads and Exchanges 27
Jon's New Caledonian Butterfly Quiz 28
Our Library 29
Other Groups' Activities 30
BOIC Programme 31

Notes on the Grassland or Chequered Copper, *Lucia limbaria* : Lycaenidae

Andrew Atkins, Box 42, Eudlo, Queensland 4554

Although an orange coloured member of the family of 'Blues', this little butterfly is not easily identified in the field. It is small and keeps low to the ground with a brisk, almost skipper-like flight. The underside is decorated in a patchwork of greys, black and almost white, providing a disruptive pattern that blends with the dry litter and rock substrate of its habitats. On warm bright days the Grassland Copper is more noticeable, with males often settling with spread, glistening orange forewings that are faced towards the sun. The females are larger and often darker on the upperside with less orange. In both sexes the contrasting black and white chequered wing-fringes clearly define the outline.



Lucia limbaria (Grassland or Chequered Copper)

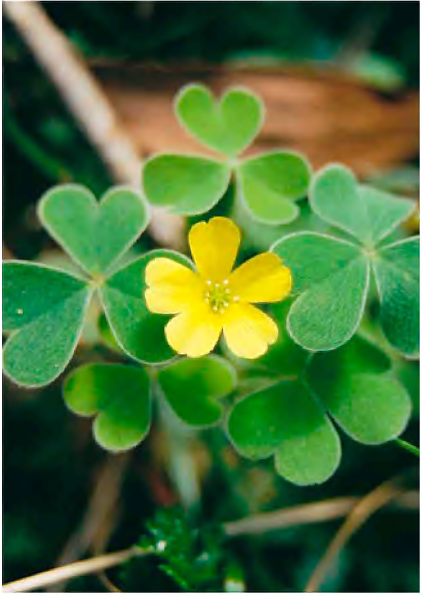
Despite its broad distribution in eastern Australia, there does not seem to be many recently published records for this butterfly, probably because of its small size, about the size of a Grass-blue (*Zizina, Famegana* and *Zizeeria* etc.) or Saltbush Blue (*Theclinesthes serpentata*) with which it flies, and its rather spasmodic appearance (both seasonally and in distribution). Dunn and Dunn (1991), for instance, merely quote records from Mackay, Yeppoon, Mount Moffatt and Augathella (Queensland), with a more generalised distribution through New South Wales, the ACT, central Victoria and South Australia (Adelaide) and also quoting "Lord Howe Island NSW", (an old record in need of verification). The distributional map (pre-1991) in this publication shows a total of about 100 records, with about 27 in Queensland, mostly clustered in the south-east inland areas.

The genus *Lucia* (with the sole species *limbaria*) is listed by Braby (2000) as distributed widely across (in) eastern and south-eastern mainland Australia (and also Lord Howe I) with additional species-distribution records including the localities of Nhill (Victoria), Mt Lofty Ranges, southern Flinders Ranges (South Australia), Warrumbungle Range, Narrandera (NSW) and Mt Coree (ACT).

From these listings it is apparent that the Grassland Copper occurs mostly inland. Braby aptly described the habitat and biology as “grasslands and open grassy woodlands where the larva feeds on leaves of native species of *Oxalis* (Oxalidaceae), and is attended by *Iridomyrmex* (Dolichoderinae) ants”. He further mentions that the butterfly “… will persist even in degraded grassy paddocks, unimproved pastures, rural gardens, and disturbed open areas providing the food plant and attendant ants are present”. Apparently *Oxalis* is toxic to livestock, and certainly can be a troublesome weed in parks and gardens. The life history of *L. limbaria* was also described in detail by Fisher, 1978.

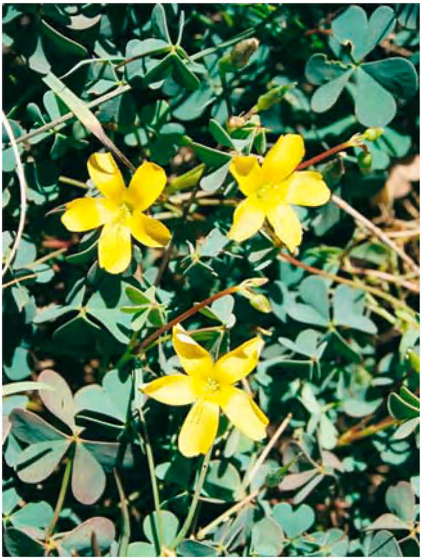
Potentially the Grassland Copper is one of the few Australian endemic butterflies that could benefit from rural ‘development’, but the species is well known to fluctuate in numbers and to occur only in discrete localised, often transient, colonies. This probably is due to local climatic conditions, but the butterfly and food plant (and presumably the ant) can recover very quickly from drought. *L. limbaria* noticeably prefers wetter ‘soaks’ or swales and stony hillocks or knolls in situations where a small colony can obtain some protection from fire and long dry seasons, and then rapidly disperse into surrounding areas following good rainfall (pers. obsv.). The larvae are also protected in the ant galleries under the soil when not feeding.

I have fairly recent records, mostly observed or collected on the edges of sandstone woodlands, in New South Wales (Sandy Hollow) and central Queensland at Isla Gorge and Cania Gorge (near Monto) and also in mixed woodlands on the eroded granite soils at Maidenwell and the alluvial creek banks at Amiens (both in southern Queensland). At the southern lowland localities in New South Wales it appears to be more common in spring and autumn, but can be found during any of the warmer months in the north following substantial rain.



Oxalis chnoodes

The Grassland Copper can also turn up in somewhat unusual places (eg Lord Howe Island and at Mt Corree (1400m) – as previously recorded). It is also recorded at a park next to foothill wet sclerophyll forests near Nambour Hospital, Queensland (T. Williams, pers. comm.). I also have observations from the ‘cloud-forest’ ridge tops of the Bunya Mountains (Queensland), on a seaside picnic ground next to lowland rainforest at Seal Rocks, on an industrial estate at Gunnedah and sub-alpine paddocks and roadsides near Nundle and Wallabadah (all NSW). Further west I have observed a few specimens on the upland tree-less plains east of Peterborough (South Australia). *Oxalis* species were present at all these localities.


Oxalis rubens

This summer (2007) I found numerous colonies of *L. limbaria* surrounding Kinbombi Falls, southwest of Kilkivan (west of Gympie). They were located in various open areas of roadside weedy vegetation and paddocks (sometimes heavily grazed) and woodlands (including iron-bark forests), extending south for approximately 25 km. At the southern-most extent of this area, a few thriving colonies were also found scattered within several kilometres of cultivated native hoop-pine forests at Jimmys Scrub and even along forestry tracks in dense natural vine woodlands. No doubt the Grassland Copper was thriving here following good spring rains. The butterfly was probably much more extensively distributed beyond the located sites. At the time (Christmas), I was 'dogged' by dense cyclonic cloud cover and could only check in the limited sunny patches offered, because the copper has (unlike its accompanying lycaenids) a habit of 'dropping to earth' the moment the sun is obscured. Two species of *Oxalis* were locally very common throughout the searched areas.

Andrew Atkins

References:

Braby, M.F., 2000. *Butterflies of Australia: their identification, biology and distribution.* 2 vols. CSIRO Publishing, Collingwood. Xxvii + 976 pp.

Dunn, K.L. and Dunn, L.E., 1991. *Review of Australian Butterflies: distribution, life history and taxonomy. Part 3 Family Lycaenidae*. Published privately: Melbourne. (Now available on CD).

Fisher, R.H., 1978. *Butterflies of South Australia.* 272 pp. Govt. Printers, South Australia

Ed.: Please note that all *Oxalis* pictured in the previous, and following, article are presumptive hostplants of the Chequered Copper.
***Oxalis* photos by Glenn Leiper. *Lucia limbaria* photo by Peter Hendry**

Further notes on the Small, Grassland or Chequered Copper (*Lucia limbaria)* Swainson 1833

This dainty little butterfly was found at Leyburn, southeast Queensland, on the club's first official overnight excursion on 16-17 March 1996, as reported in Newsletter No. 2. It turns up from time to time but due to its small size (23 to 25 mm wingspan) often goes unnoticed. Since the 1920's (Waterhouse 1932) it has been commonly known as the "Small Copper", to differentiate it from the slightly larger species of the genus *Paralucia.* Then Braby (2000) referred to it as the "Grassland Copper" but changed this to "Chequered Copper" in the 2004 CSIRO Field Guide.

Oxalis corniculata

Ross Kendall and I have found it at Thane Creek west of Warwick, Qld., where two species of *Oxalis* grow, sometimes in fairly dry conditions when there is no rain nor flow in the creek. I believe Wesley Jenkinson has encountered it in the Beaudesert area and more recently Mike Barnett has found it visiting his suburban Corinda garden. The specimen in the accompanying photograph was seen by Peter Hendry near the Deepwater River south of Tenterfield N.S.W.

For years its hostplant in coastal/subcoastal Vic., N.S.W. and Qld. was considered to be the common exotic species *Oxalis corniculata*, but this has never been confirmed. Two native species of *Oxalis* have been determined as hosts in the A.C.T. (*O. exilis*) and the Mt. Lofty Ranges in S.A. (*O. perennans*) as reported in Braby (2000). To date, the native *Oxalis* hostplants in the bulk of its (eastern) distribution remain unknown.

Some of our readers may care to attempt raising this pretty butterfly on potted specimens of other *Oxalis* species including *O. corniculata*. Although there is a high degree of association between the larvae of this species and small black ants of the genus *Iridomyrmex* [classified as "obligately myrmecophilous – mutualistic" by Eastwood and Fraser (1999)] it would be worthwhile attempting this, even in the absence of the ants.

Other members unpublished collecting and/or observation records would be welcome, especially life history notes. ***John Moss***

References:
Braby, M.F. (2000) : Butterflies of Australia – their Identification, Biology and Distribution. Vol. 2. CSIRO Publishing.
Eastwood, R and Fraser, A (1999) : *Associations between lycaenid butterflies and ants in Australia* in Australian Journal of Ecology 24, 503-537.
Waterhouse, G.A. (1932) : *What Butterfly is That*, Angus & Robertson (Sydney) Publishers.

FROM THE PRESIDENT (CONTD.)

The success of our applications for grants submitted to the Brisbane City Council and the Gambling Community Benefit Fund is in no small measure due to the support given by Ronan Lee MP, Councillor Jane Prentice, Scott Edwards of the Brisbane City Council, the Bulimba Creek Catchment Coordinating Committee, the Eprapah Creek Catchment Landcare Association Inc and the Cubberla Witton Catchments Network Inc. I publicly thank them on behalf of the Club.

Best wishes ***Ross***

ITEMS OF INTEREST

Club microscope and camera equipment

The Club's new microscope and camera

The club recently acquired an excellent microscope and camera assembly funded by the Gambling Community Benefit Fund.

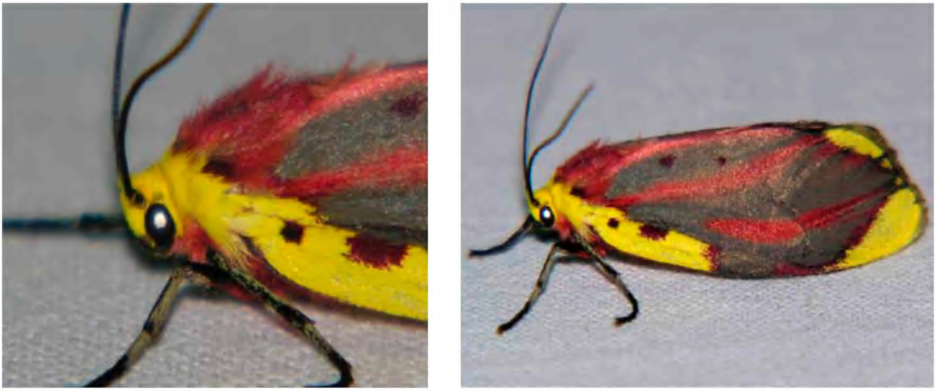
The microscope is actually a trinocular (photo tube), zoom stereomicroscope with WF10x/22mm eyepieces and a working distance of 100mm. Its "extras" are an LED flexible torch and mount, two WF 15x eyepieces, a C mount 1x with parfocality adjustment, an 8w circular fluorescent light and a supplementary lens 1.5x. The Canon PS 640 camera has a comprehensive assortment of attachments and accessories. There is also a complete cold light source system. A tough, padded carry case with wheels and handles enables all the equipment to be packed securely for transport.

The equipment was set up at a recent club event at Ross's where we photographed an egg of a Varied Eggfly (*Hypolimnas bolina nerina*). The equipment has been placed in Peter's care and he is learning how to use it and to use the best lighting techniques. If you, as a member, would like to use the equipment for a particular project, please contact Peter and we will work on it.

Ross Kendall* and *Peter Hendry

AT THE LIGHT TRAP

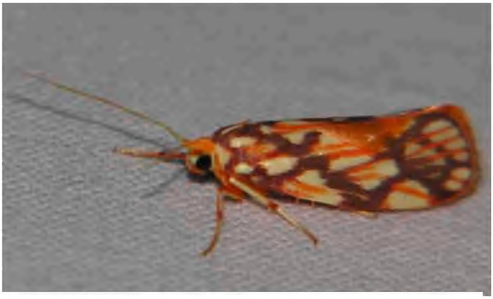
Eustixis sapotearum - I first encountered this beautiful moth at a light trap in rainforest near Murwillumbah NSW in October 2007, so I was delighted when it turned up here at Sheldon (Redland Shire Qld) in mid January 2008. Common (1990) gives its distribution from north-eastern Qld to Kiama NSW and deals with it as *Lactura suffusa* in the family Zygaenidae. In the Zborowski and Edwards (2007) work it has been moved to the family Lacturidae and the distribution given as, from southern Qld to Wollongong NSW and also refer to a closely related species on the Atherton Talbeland. Presumably the moth referred to by Common as *Lactura suffusa* has been split into two or more species and placed in a new family (based on the old genus name). It appears it was described more than once and has reverted to its original name (a rose by any other name….). The larval food plant of *E. sapotearum* is listed as *Pouteria australis* (Sapotaceae). While I do not have this on my property I do have a cultivated Sapote and wonder if it is also a food source.



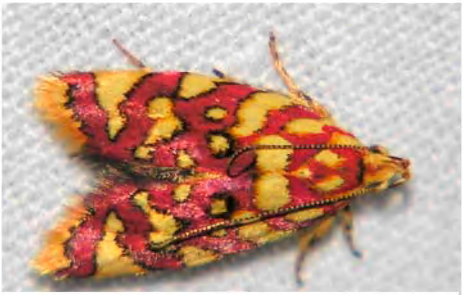
Eustixis sapotearum

Another moth in the Lacturidae that has come to light at Sheldon is *Eustixis panopsia*. With a wingspan of about 20mm it is about half the size of *E. sapotearum*.

For some time I have been intrigued by a very beautiful and very small moth, which has appeared on a few occasions. I have finally tracked it down to belonging to the family Oecophoridae subfamily Oecophorinae and is a member of the genus *Tisobarica.* To put a specific name on it for me is impossible and one I will leave to the experts. The genus as it stands (Common 2000) is divided into two groups: the Jucundella, containing two species which belong to *Tisobarica* in the strictest sense and the Eranna containing six named species and a further three unnamed species (from south-eastern Qld. and northern NSW), which may at some stage be removed from *Tisobarica.*

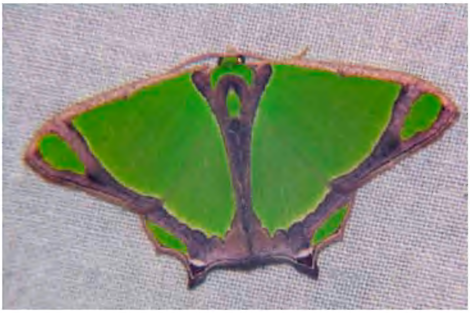


Eustixis panopsia

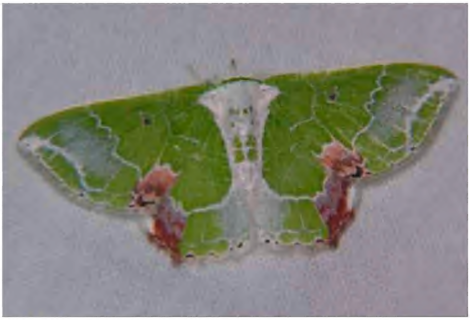


Tisobarica sp.

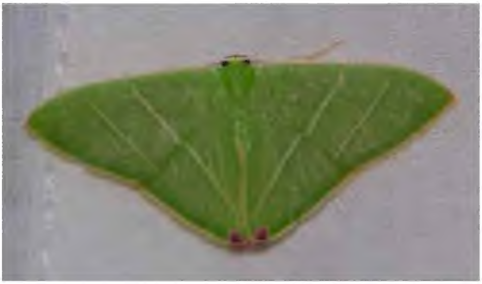
In our newsletter No 45, I looked at some of the green Emeralds in the subfamily Geometrinae of the Geometridae family. Since then I have had more species come to the light, including *Agathia prasinaspis,* a rainforest species which came to light at West Bellthorpe. In recent months *Uliocnemis partite,* has become a common and welcomed species at Sheldon. *Urolitha bipunctifera* has appeared at both Bellthorpe and Sheldon. A once only visitor to Sheldon on the 28/8/2007 was *Prasinocyma iosticta*



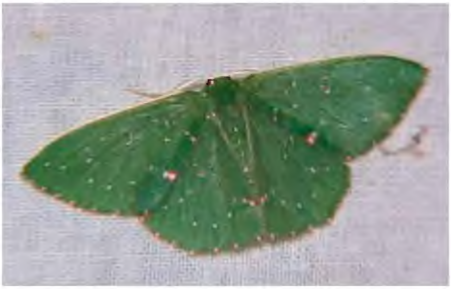
Agathia prasinaspis



Uliocnemis partite



Urolitha bipunctifera



Prasinocyma iosticta

Peter Hendry

Photos by Peter Hendry

References:

Common, I.F.B. (1990) :Moths of Australia - Melbourne University Press

Zborowski, Paul and Edwards, Ted (2007): A Guide to Australian Moths - CSIRO Publishing

Common, I.F.B. (2000): Oecophorine Genera of Australia Vol III – CSIRO Publishing

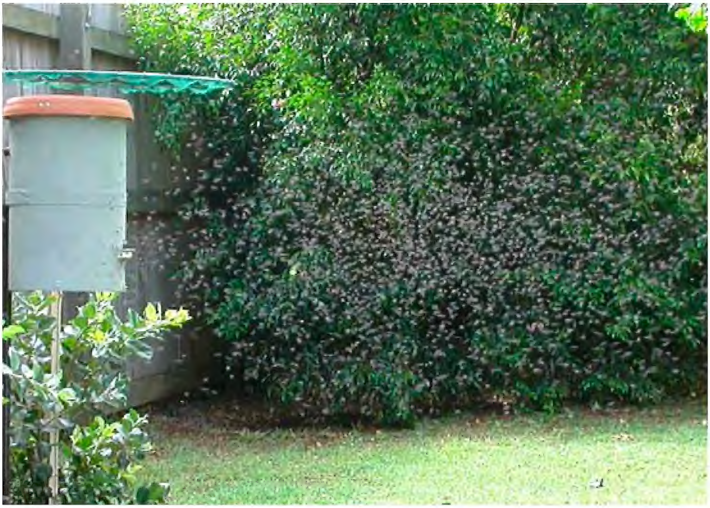
AUSTRALIAN NATIVE BEES #13

WAR AND PEACE - PART 1

Recently I received a message from a lady in Sydney who described her newly acquired stingless bees as 'sweet little things'. It brought a wry smile to my face because such a description conjures up an image of these little creatures foraging peacefully on warm sunny days amidst a garden full of flowers. Unlike the leaf eating caterpillars and grasshoppers these sweet little bees take only what the plants freely offer them in exchange for their pollination service. A symbol of industriousness and co-operation they are often held up as an example for us all to follow. Of course on a daily basis these small insects must battle the elements and avoid attacks from predatory insects and spiders, but unlike us they are in tune with nature, at peace with the world, and love all their neighbours – or do they?

I hate to shatter this idyllic illusion (and string of clichés) by saying that Nature sometimes sounds a more strident note and calls these creatures to war.

Stingless they may be, but regrettably our native social bees are not always peaceful. Occasionally a large fighting swarm will assemble and the combatants will fight to the death. These are usually not short-lived skirmishes either; sometimes the encounter will persist for days with the swarm reforming each morning to do battle in their war of attrition. The ground may be littered with hundreds or even thousands of worker bees locked together in combat from which very few will survive. This miniature battlefield is made even more gruesome by the sight of teams of the ever-present ants dragging away the grounded and therefore mortally wounded bees to their own nests, while the dogfights continue overhead. Such battles are a windfall for these opportunistic scavengers regardless of the outcome of the aerial warfare above. Stingless beekeepers are perplexed by this fighting activity which can rapidly reduce the foraging strength of the hives involved. Fighting swarms can occur unexpectedly at any time of the year, although they are usually more prevalent in the warmer months. To add to the mystery it appears that while stingless bees are widespread throughout the warmer regions of the globe, there are relatively few reports of such fighting behaviour outside Australia. The *Trigona* species are the most belligerent, but on occasions our *Austroplebeia* bees will also engage in this aggressive and destructive behaviour.



The War!

I should also hasten to add that fighting swarms are not confined to collections of artificial hives. They have also been observed in naturally occurring colonies. By the way I am reluctant to use the term 'apiary' when referring to a collection of stingless bee hives because that word is obviously derived from the scientific term for the honeybee species ('Apis'). Perhaps we should coin the word 'Trigonary' as the collective term for our stingless beehives; but I digress from my dissertation on bee warfare.

Given our busy lifestyles and work commitments the first indication stingless beekeepers may have that something is amiss is when they return home in the evening and find a carpet of dead and dying bees in front of their hives. By this time the remaining battle forces have retreated to their respective colonies for the night. In these circumstances the novice beekeeper might not connect the death toll with a natural event and assume that it is due to the effects of an insecticide or disease. If a close inspection of the dead bees reveals that most are locked together in pairs then you can forget about castigating your neighbour for his excessive use of lawn grub spray and be reasonably confident that a fighting swarm has taken place during your absence.

Those of us who have witnessed these fighting swarms first hand are usually more concerned about finding a way to separate the warring parties than making a detached scientific observation of the proceedings so there may be some variation in the description of fighting swarms amongst beekeepers. After seeing many of my own colonies engage in this behaviour over the years my composite impression is of a relatively tight formation of hundreds or sometimes thousands of bees forming up in front of one particular hive in the collection. Most of the individual bees within the swarm fly quickly in small circles and while the overall shape of the mass of bees may change a little in the wind the swarm usually stays within about 3 metres of the hive that is the focus of attention. On still days the buzzing sound produced by thousands of tiny rapidly beating wings is clearly audible. While it may be fanciful to say so the combination of these aspects conveys the feeling of angry, aggressive intent.

As this aggression builds pairs of workers may lock together in flight and drop out of the air only to release each other and return to the swarm. This behaviour gives the impression that the opposing forces are testing out the strength of their enemies, but another suggestion put forward is that they are comrades in arms who have seized each other in error and have realized their mistake before any serious damage was done.

The aftermath!

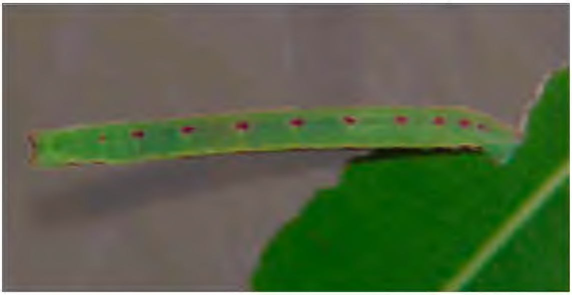
When the real fighting begins pairs of bees lock onto each other with their mandibles and fall to the ground in a savage wrestling match which usually results in the death of both of them. Bees appear to rain from the swarm and their bodies gradually build up on the ground below.

Stingless beekeepers are naturally keen to prevent or reduce the incidence of fighting swarms. However, to do this it is necessary to have some understanding of why they occur. In the past, the absence of definitive evidence led to wide ranging speculation and in some cases to far-fetched ideas.

In the next edition we will look into two reasons why the Dogs of War may become unleashed in the stingless bee world. In addition we will discuss some methods beekeepers employ to try to bring about a ceasefire. If space permits we may also discuss other more peaceful swarms where the participants are only intent on making love – not war. **John Klumpp**

Photos by John Klumpp

IN THE GARDEN WITH PETER

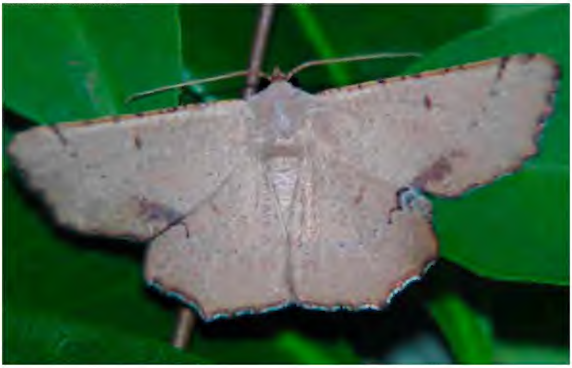


Cernia amyclaria larva

While collecting some Eucalypt leaves to feed some *Entometa fervens* larvae (a moth in the Lasiocampidae family), I found a small green geometrid larva (looper caterpillar) with reddish-maroon dots down the middle of its back and a reddish-maroon dashed line along its side. It was decided to raise it and find out what it might be.

It was happy with its diet of *Eucalyptus* and soon pupated. On the second of February 2008 it emerged. I recognized the moth as one that has come to light here at Sheldon on many occasions and also at Deepwater in NSW. It was *Cernia amyclaria* belonging to the subfamily Oenochrominae in the Geometridae family of moths.

*Zborowski and Edwards, give its distribution as the Pilbara and Kimberley districts of WA, across the top end of NT in eastern Australia from Cape York Qld to Batemans Bay NSW, but surprisingly they state that nothing is known of it biology, so now we know something!



Cernia amyclaria imago

Photos by Peter Hendry **Peter Hendry**

* A Guide To Australian Moths Paul Zborowski and Ted Edwards

NEW HOST PLANT

A “new” host plant for the Black Jezebel (*Delias nigrina*) butterfly

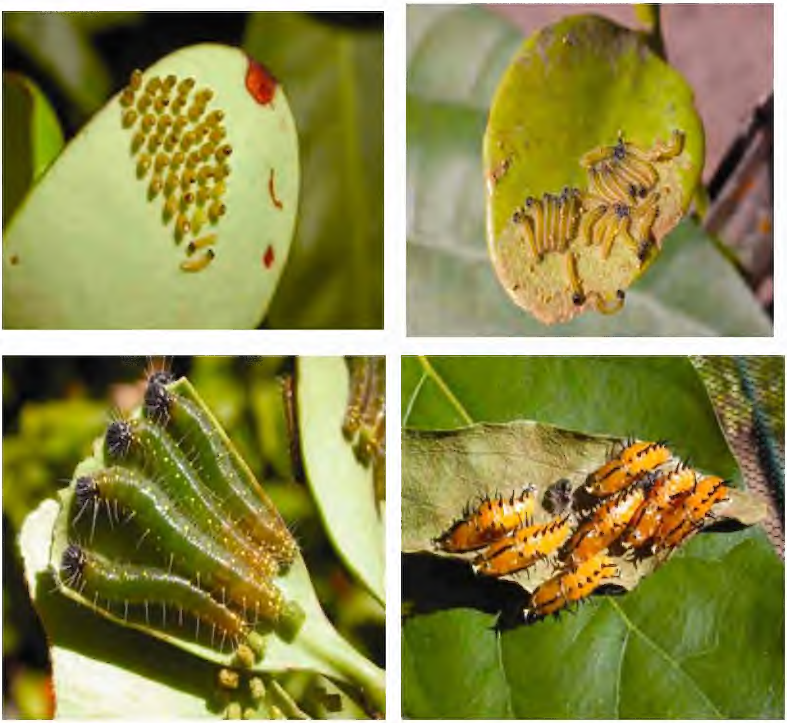
It is natural to assume that observations and records of the life cycle of a relatively common and widespread butterfly are virtually complete. Such was the case in June 1997 when, while walking my dog along Witton Road at Indooroopilly, I stopped on the footpath to examine some mistletoes growing on Bottlebrush trees (*Callistemon viminalis*) and noticed caterpillars feeding on the mistletoe.

Black Jezebel (*Delias nigrina*)

I took a cutting of the mistletoe with a couple of the caterpillars and subsequently raised them through to adults at home. On consulting my “Common and Waterhouse” I identified the larvae and adults as Common (now called Black) Jezebels (*Delias nigrina*) but thought little of the mistletoe.

Several years later John Moss informed me that the mistletoe was the Shiny-Leaved Mistletoe (*Benthamina alyxifolia)* and that he had seen the butterfly flying around trees hosting this mistletoe at Mt Glorious. I again consulted “Common and Waterhouse” to discover that this mistletoe was, then, not listed as a host plant. In Braby (2000) I found mention of the fact that “In captivity, larvae will also accept and develop successfully on….. *Benthamina alyxifolia…..”*

Since that first discovery in June 1997, I have frequently found clusters of eggs on new growth of the mistletoe and the butterfly has successfully completed development on it. Thus I can confirm that *Benthamina alyxifolia* is definitely a natural host of *Delias nigrina*.



Eggs, larvae and pupae of *Delias nigrina*

Footnote.
On 17th September 2007, John Moss and I observed two female Northern Purple Azures (*Ogyris zosine)* exhibiting ovipositing behaviour on the bark of those same callistemons near *Benthamina alyxifolia.* Subsequent searches have failed to find evidence of

Northern Purple Azure (*Ogyris zosine*) ovipositing larvae, pupae or attendant ants.

Photos by
Ross Kendall **Ross Kendall**

References:
Common, I.F.B. and Waterhouse, D.F., 1981. *Butterflies of Australia.* Angus & Robertson Publishers.
Braby, M.F., 2000. *Butterflies of Australia: their identification, biology and distribution.* CSIRO Publishing.

HOST PLANT BOOK UPDATE

The club has recently reprinted, with minor amendments, John Moss' popular "Butterfly Hostplants of southeast Qld. and northern N.S.W." . This new version of the second (revised) edition includes several new host plant observations, confirmation of some doubtful ones, correction of some computer transposition errors and the addition of some previous records inadvertantly omitted. Some of these amendments were foreshadowed in Newsletter No. 45, June 2007, with the inclusion of a reprint of pages 50 and 51.

It is regrettable that we could not include formal acknowledgement of the new contributors therein. Consequently, we now take the opportunity to thank Wesley Jenkinson, Kelvyn Dunn and Glen Cleminson for allowing us to include their unpublished records. Thanks also to our previous contributors – in particular Andrew Atkins and Murdoch de Baar – for their new records.

Unfortunately it was not possible to include every new item of information – this would have been a large undertaking and would have required a major revision of the layout and an increase in the (current) 52 pages of information, and therefore an upgrade of the binding.

Albizia lebbeck hostplant for, among others, the Tailed Emperor (*Polyura sempronius*)Photo by Garry Sankowsky

Members and friends, especially those who have not previously secured a copy or have an earlier edition, should take this opportunity to purchase a copy, still available at the old price of $8.50 (plus $1.50 postage). **Editor**

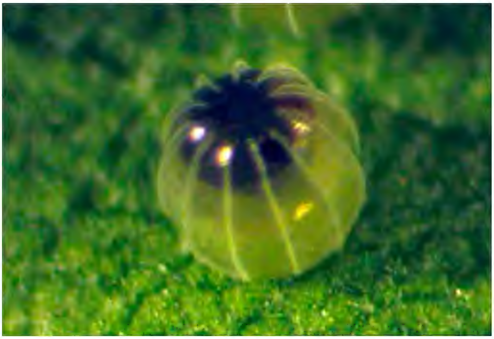
EXCURSION REPORT

Excursion to Ross Kendall's home for the "Flight Cage Extravaganza" Saturday, 9th February 2008.

The Flight Cage Extravaganza has been one of the most successful BOIC events for some time, with 28 people (22 BOIC members and 6 visitors) registering their attendance!

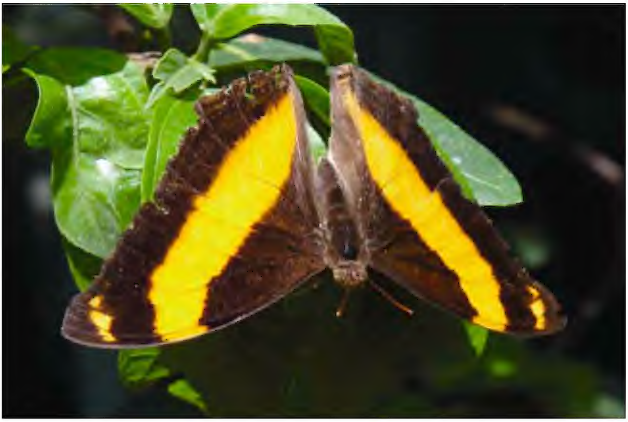
This club event was based at the residence of Ross Kendall, our club president. Ross is in the butterfly business of breeding and distributing butterflies through his company "Butterfly Encounters Pty Ltd". His butterflies are released at special events, including weddings. A special thank you to Ross for welcoming us into his home.

I have known Ross for a little while now, but I had not had the pleasure of visiting his home until this BOIC event. On arrival at his house, I was greeted by a larva of one of my favourite butterflies - the stunning Ulysses Butterfly - resting on a host plant immediately inside the front door. Very appropriate, I thought. After greeting the masses of human guests present, I then made my way into the "nursery" – a room filled with plastic containers full of leaves and butterfly eggs, larvae, and pupae, at different stages of development. Some of the pupae had started to stir, and over the course of the event we witnessed the emergence of some beautiful Common Eggfly adults (males and females).



Egg of the Varied Eggfly (*Hypolimnas bolina*)
(a first attempt)

The first tour group of Ross' garden and flight cage was underway while I visited the nursery. Eventually a few hands began to set up one of the club's latest acquisitions in the nursery room – a dissecting microscope and digital camera. After a bit of fiddling we tested the equipment on some Common Eggfly eggs attached to some plant material. The resulting image on the camera screen was brilliant – the eggs resembled tiny, immaculate jelly-moulds, and appeared in exquisite detail on the camera screen. The image resolution was certainly impressive. I don't suppose we will be photographing many animals smaller than the size of a butterfly egg! Elsewhere in this newsletter you will find a report on this valuable addition to the club assets.



Male Lurcher (*Yoma sabina*) [Nth Qld. species]

The garden and flight cage tour was very comprehensive. I waited approximately one hour before the second tour group I could join was underway! Ross showed us a selection of butterfly food plants, including many pots of *Oleander* for the Common Crow, *Citrus* species for the Orchard Swallowtail, and *Sida rhombifolia, Asystasia gangetica* and *Alternanthera denticulata* for the Common or Varied Eggfly. We were shown some other butterfly host plants that Ross uses, including *Hemigraphis* species for Lurchers, before making our way past the huge water tanks used to sustain the butterfly plants.

Inside the flight cage

In Ross' backyard we saw many pots of *Cullen tenax* (Emu's Foot), which were unfortunately appearing lush and rather untouched by Chequered Swallowtails. Ross explained that it hasn't been a good season for the Chequered Swallowtails so far. We also saw Ross' custard apple tree – many years old now, but apparently it has never produced fruit! At least the Pale Triangles have benefited from it over the years as a larval food plant.

Beside the custard apple tree there were several plants of *Cynanchum carnosum*, which is a host plant for Swamp Tigers, Blue Tigers, Common Crows and Lesser Wanderers.

The highlight of the day was entering Ross' flight cage. Perhaps "flight cage" isn't quite the right word for it, as it was more on the scale of a circus tent! Apparently it is also referred to as "The Cathedral". The "cage" is 15m long, 6m wide, and 4m high. It is covered in shade cloth and is full of plants, butterfly feeding stations and of course the butterflies themselves. Ross uses the flight cage for housing adult butterflies, allowing them to mate and lay eggs for collection. These are moved into the nursery for hatching.

Clearwing Swallowtail (*Cressida cressida*)

We saw several species on the wing and observed their associated larvae: Common Eggfly (there were larvae on the Native Mulberry *Pipturis argenteus*), Wanderer, Orchard Swallowtail, Big Greasy, Lurcher, Large Grass Yellow, Lemon Migrants and Yellow Migrants. Ross pointed out the various butterfly and plant species to be seen. Some plants were larval host plants, while others were useful food sources for the adults. He also pointed out some wasps that had breached the shade cloth barrier in order to parasitise the butterfly larvae; and also a gecko, which can make a meal of a butterfly - both of which are obviously a nuisance for Ross.

It was delightful to see butterflies landing on the visitors' arms, hats and shirts, as well as the specialised butterfly feeding stations which were useful for observing some of the faster flying species once they landed.

On conclusion of the second tour we commenced the planning and management meeting of the club committee - which is held in order to plan future events, among other things. It was a good thing that some non-committee members took part and made significant contributions to the discussions over a cuppa and extended lunch.

Alisha Steward

Photos by Alisha Steward

FURTHER ITEM OF INTEREST

BUTTERFLIES AT HINTERLAND REGIONAL PARK – originally written by Graham McDonald for "Understoreys" - a Gold Coast City Council publication

Large Grass-yellow (*Eurema hecabe*)

Our Bushcare group has now been active for six years planting and restoring habitat at Hinterland Regional Park – a very large 58 ha ex-grazing property at Hardys Road, Mudgeeraba. What has been achieved in native vegetation restoration and rehabilitation has been remarkable – not only in terms of the large areas of vegetation restored but also by the simultaneous explosion in invertebrates and vertebrates which now call these areas 'home'! The butterfly and bird populations, in particular, have increased dramatically, in diversity and numbers.

Over six years ago, a degraded landscape supported a few hardy butterfly species dependant on introduced weeds and a few native grasses and vines. These species were commonly observed

- Evening Brown (*Melanitis leda*) – host plants are common grasses
- Large Grass-yellow (*Eurema hecabe*) - host plant is native coffee bush *Breynia oblongifolia*
- Lesser Wanderer (*Danaus chrysippus*) – host plants balloon cotton **Gomphocarpus physocarpus* and red-head cotton bush **Asclepias curassavica*
- Monarch (*Danaus plexippus*) - host plant balloon cotton **Gomphocarpus physocarpus*
- Common Crow (*Euploea core*) – host plant common

Lesser Wanderer (*Danaus petilia* [was *D. chryssipus petilia*]) silkpod vine *Parsonsia straminea*

Common Crow (*Euploea core*)

Spurred on by the obvious explosion in butterfly species, due to the large and diverse numbers of plant species incorporated into the plantings (335 native species), I have recently begun to compile butterfly sightings records. Since mid-March nearly 40 butterfly species have been sighted in the front area of the park bordering Hardys Road. This area contains the greatest diversity and concentration of plant species ranging from rainforest plants in the two gullies, moist and dry eucalypt woodland communities and grasses and sedges in the floodplain areas.

Our current list includes the following butterflies:
Black Jezebel (*Delias nigrina*); Blue Tiger (*Tirumala hamata*); Blue Triangle (*Graphium sarpedon*); Bright Cornelian (*Deudorix diovis*); Brown Ringlet (*Hypocysta metirius*); Caper Gull (*Cepora perimale*); Common Crow (*Euploea core*); Common Grass-blue (*Zizina labradus*); Evening Brown (*Melanitis leda*); Fuscous Swallowtail (*Papilio fuscus*); Glasswing (*Acraea andromacha*); Green Awl (*Hasora discolor*); Greenish Darter (*Telicota ancilla*); Hairy Line-blue (*Erysichton lineata*); Large Grass-yellow (*Eurema hecabe*): Lemon Migrant (*Catopsilia pomona*);Lesser Wanderer (*Danaus chrysippus*);Lilac Grass-skipper (*Toxidia doubledayi*): Long-tailed Pea-blue (*Lampides boeticus*); Monarch (*Danaus plexippus*); Narrow-brand Grass-dart (*Ocybadistes flavovittata*); Orchard Swallowtail (*Papilio aegeus*); Pale Triangle (*Graphium eurypylus lycaon*); Purple Crow (*Euploea tulliolus*); Scarlet Jezebel (*Delias argenthona*); Small Dusky-blue (*Candalides erinus*); Small Green-

Varied Eggfly (*Hypolimnas bolina*)
Photo by Alisha Steward

banded Blue (*Psychonotis caelius*); Splendid Ochre (*Trapezites symmomus*); Striated or Chalky Pearl-white (*Elodina parthia*); Swamp Tiger (*Danaus affinis*); Tailed Emperor (*Polyura sempronius*); Varied Eggfly (*Hypolimnas bolina*); Wattle Blue (*Theclinesthes miskini*); White-banded Line-blue (*Nacaduba kurava*);White-banded Plane (*Phaedyma shepherdi*):White-brand Grass-skipper (*Toxidia rietmanni*);White-margined Grass-dart (*Ocybadistes hypomeloma*);Yellow Albatross (*Appias paulina*).

Many of the host plants for butterfly larvae we deliberately planted but some have **not yet** attracted the host butterflies –

- Richmond Birdwing (*Ornithoptera richmondia*) on the Richmond Birdwing vine *Pararistolochia praevenosa*
- Southern Sedge-darter (*Telicota eurychlora*) on the leafy twigrush *Cladium procerum*

Some plants have been spectacularly successful in attracting their host butterflies, often within only one season.

- Green Awl (*Hasora discolor*) were using the host burny bean vine *Mucuna gigantea* in 2003 when it had been planted in 2002.

Why does one plant appear to attract its host butterflies while another appears to be a 'failure'?

The answer is simple – Common butterflies breed on common plants which are often quite close to the area where the host plant may be deliberately planted to attract them. In the case of the Green Awl (*Hasora discolor*), an established population was known from Mudgeeraba Creek on Somerset Drive near the Mudgeeraba Bowls Club. Adult insects only had to fly 600 metres up one gully to find our host plants.

The Southern Sedge Darter (*Telicota eurychlora*) is rare because its host sedge, leafy twigrush *Cladium procerum*, now exists precariously on the Gold Coast in only 2 – 3 small populations, all of which are over 15 kilometres from the park. Adult butterflies are never likely to find them. The

Blue Argus (*Junonia orithya albicincta*)
Photo by Garry Sankowsky

Richmond Birdwing may eventually fly across our planted *Pararistolochia praevenosa* vines and establish a breeding population as they are known to occur at Smith Street, Bonogin which is within their flight distance. We are waiting . . . .

Quite a few uncommon species of butterflies have been noted in the park in the past few years, but they will not appear on the current list until they are observed again. They include –

- Blue Argus (*Junonia orithya albicincta*) - this butterfly is very rare south of Gladstone.
- Bordered Rustic (*Cupha prosope*) – this species is now rare south of Maryborough due to clearing of its habitat consequently reducing its host plants – mostly Flintwood (*Scolopia braunii*.)
- Dainty Grass-blue (*Zizula hylax attenuata*) – this small blue butterfly is rare south of Brisbane as its host plant karamat *Hygrophila angustifolia* is almost locally extinct on the Gold Coast due to habitat clearing of Melaleuca wetlands and overgrowth of weedy exotic grasses. Only one tiny population is known to me at Oaky Creek, Coomera which may also have been cleared by now.

One of our prime objectives is to plant as many butterfly host plants as possible into selected suitable habitat on the park. In doing this we will in a small way address some of the habitat destruction which is decimating butterflies in our area.

Butterflies often select host plants which human beings view as either ‘untidy’ or as ‘rubbish’. These are the kind of plants which are ‘selectively’ cleared from bushland and prevented from regenerating by continual slashing of the understorey.

If we do not achieve this objective, our descendants will be stuck with an impoverished world where the only butterflies will be the

- Common Crow (*Euploea core*) which has a wide choice of introduced food plants,
- Monarch (*Danaus plexippus*) that can fly in from adjacent weedy areas and
- Orchard Swallowtail (*Papilio aegeus*) whose caterpillars eat cultivated citrus leaves.

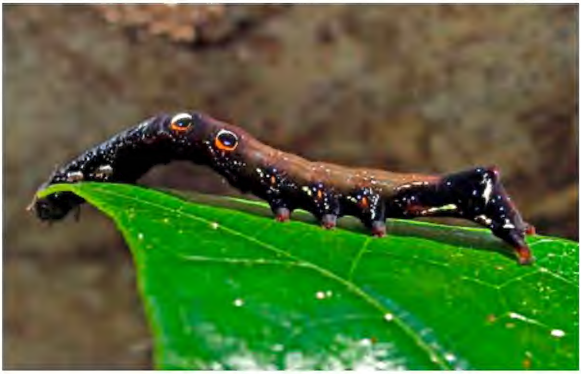
Monarch (*Danaus plexippus*)

Graham J. McDonald

References:
Braby, Michael F. (2000) *Butterflies of Australia: their identification, biology and distribution.* CSIRO Publishing
Jordan, Frank (2005) *Create More Butterflies*. Earthling Enterprises
McDonald, Graham J. (1998) *Growing a Butterfly Garden in South-East Queensland*. Graham and Beth McDonald

Note: The photos (except where credited elsewhere) were supplied by Ross Kendall and did not appear in the original article.

YOU ASKED



I wondered if one of your members could identify this caterpillar which I found feeding on a *Sarcopetalum harveyanum* (Pearl Vine). There were actually a couple of caterpillars and they seemed to be eating a prodigious number of leaves!
Regards , ***John Lahey***

The moth from this larva is the a fruit piercing moth, *Eudocima fullonia*, Family Noctuidae sub family Catocalinae. You can check it out on Don Herbison-Evans web site [http://www-staff.it.uts.edu.au/~don/larvae/cato/fullon.html] where he lists several host plants including *Sarcopetalum harveyanum.* ***Peter Hendry***

SEED BANK NEWS

We have a quantity of various butterfly host plant seeds available (see previous newsletters). Seeds are available by sending two 50c postage stamps to BOIC Seed Bank Curator, 140 Henderson Road, Sheldon 4157. Please supply your name and address and which seeds you require. Let us know if there are specific seeds or plants you require and we may be able to help you.

ALPHABET POSTER

The club has a number of Kjell Sandved's Butterfly Alphabet Posters (second version) for sale.This magnificent poster features all the letters of the alphabet and the numerals 1 to 9 as individual images taken from the actual wings of moths and butterflies. Below is a sample from the poster spelling out the club's initials. It is available from the club for the price of $25 plus $5 postage.

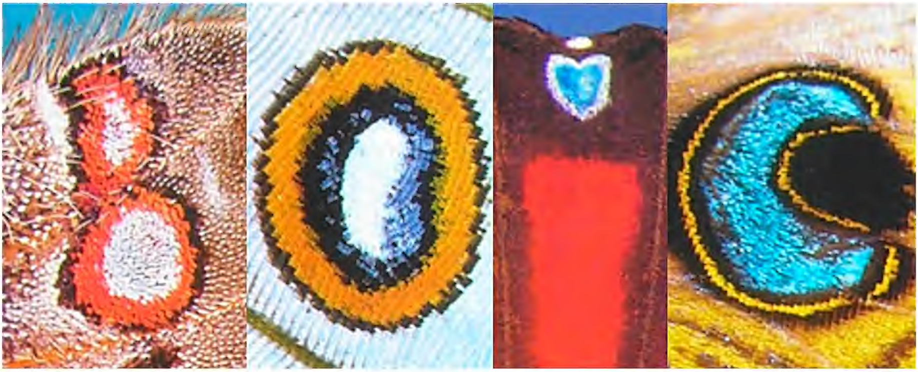
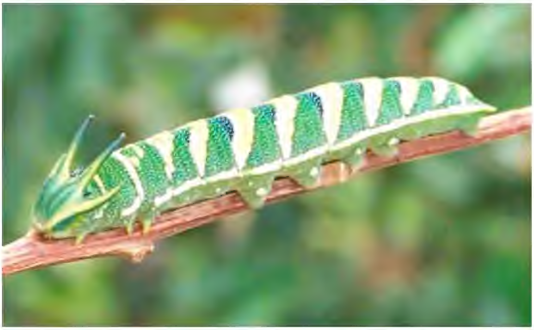


Photo of sections of the poster taken by Peter Hendry

LETTERS

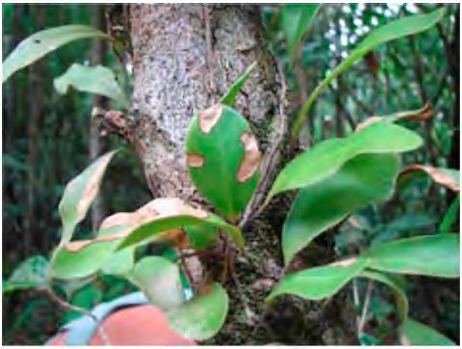


Hi, I just wanted to say thank you for your site. We came across a very striking caterpillar at Minnamurra in NSW and were curious as to the moth or butterfly it would become. Your website helped us identify it as a Tailed Emperor. I have included a photo we took. The caterpillar was found on an Acacia tree.

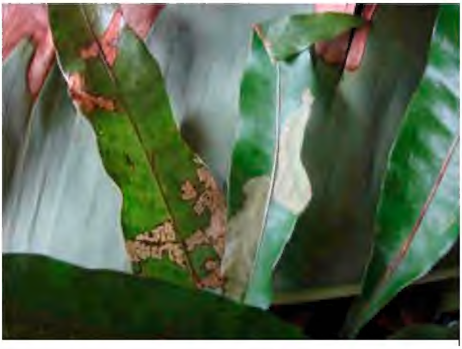
Thanks again Anne De Palo

OOPS!

My apologies to Bob Miller for incorrectly captioning his photos of larval feeding patterns in Newsletter # 47 – Trip to Iron Range National Park, June 2007. Only one photo appeared but I will now give you both of the photos which Bob provided . (Hopefully I have the correct captions this time!)



Feeding patterns of *Hypochrysops hippuris*, on *Pyrrosia lanceolata* Photo by Bob Miller



Larval feeding pattern of *H. theon medocus* Photo by Bob Miller

Daphne – Ed.

BACK ISSUES

Back Issues of the Club Newsletter are available at a cost of $2 each plus postage (1-2 copies $1.10 - 3-6 copies $1.50). **Newsletters (issues #1-45) are now available on a CD-ROM at a cost of $20 plus $2.35 P&P to members and $35 plus $2.35 P&P to non-members.**

ADS AND EXCHANGES

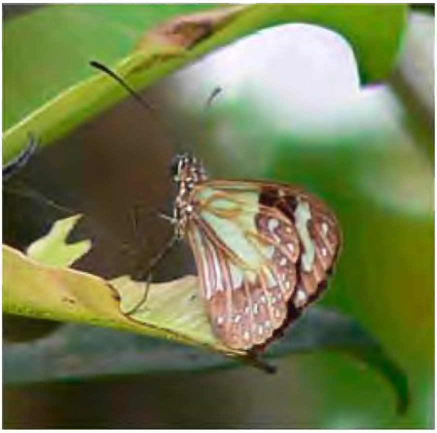
The following artworks are available from Lois Hughes Ph. 3206 6229

Fine art butterfly prints 30x21 cm – 14 designs including Richmond Birdwing, Common Crow, Blue Triangle and others - $20.00 each
Joseph's Coat moth 31x21.6 cm $40.00 each
Laced Fritillary butterfly 31x24 cm $50.00 each
Common Eggfly 46x34 cm $45 each All plus postage

JON'S NEW CALEDONIAN BUTTERFLY QUIZ

Now for the next lot –

1



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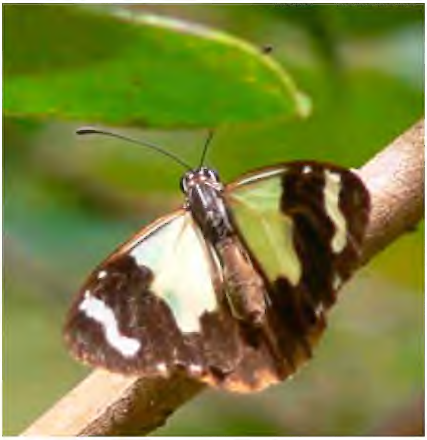

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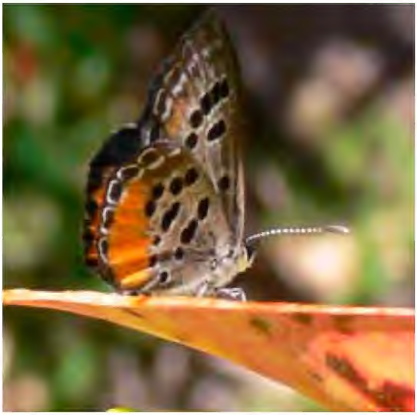

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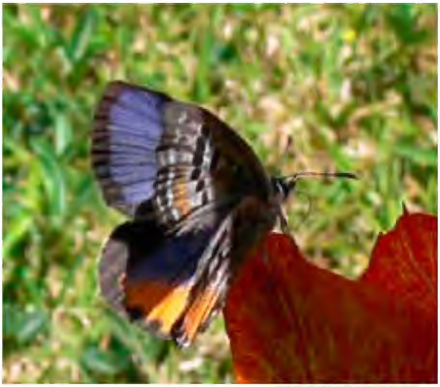
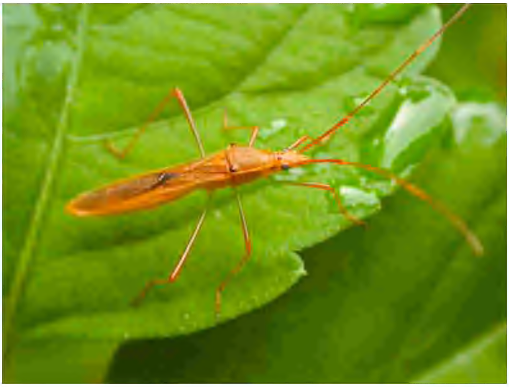


WHAT BUG IS THIS?



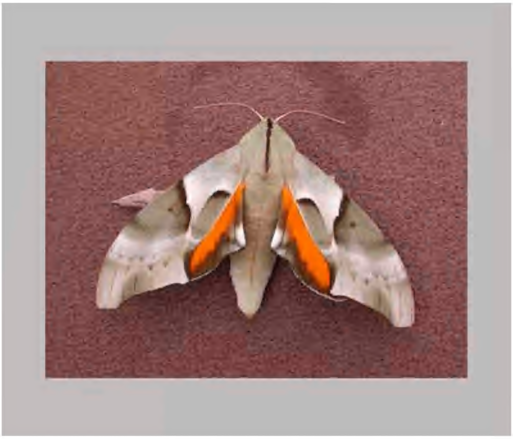
Do you know what this wee beastie is? If so, could you write to us and tell us a little about it please.

Photo by Ross Kendall

WHAT MOTH IS THIS?

Please tell us what you know of this moth.

Photo by Ross Kendall



OUR LIBRARY

The following books are currently available for loan at meetings:-

Australia's Butterflies, by Peter Wilson
Butterfly Magic, by Helen Schwencke and Frank Jordan
Australian Cicadas, by Max Moulds
Butterflies of Australia, by Common and Waterhouse, 1981
Butterfly Watching, by Paul Whalley
Flying Colours, by Mike and Pat Couper
All Colour Book of Butterflies, by Robert Goodden
Lifecycle of the Ulysses Butterfly, Video, by Janet Richardson
Lifecycle of the Cairns Birdwing Butterfly, Video, by Janet Richardson
Bugs, Beetles, Spiders and Snakes by Ken Preston-Mafham, Nigel Marven and Rob Harvey
Collecting, Preserving and Classifying Insects by Queensland Museum
Australia's Insect Life by Peter Wilson
Butterflies of Australia by I.F.B. Common and D.F. Waterhouse. This is a 1981 reprint
A collection of *Australian Entomology* magazines

We also have the newsletters of the following organisations, with whom we have newsletter exchanges, which may be borrowed -
Butterfly Conservation of SA; Land for Wildlife; Moreton Bay Marine Conservation; Theca; The Society for Insect Studies; Toowoomba Field Naturalists Club; WA Insect Study Society; Wildlife Preservation Soc.

OTHER GROUPS' ACTIVITIES

The Society for Growing Australian Plants (Qld Region) Inc. will hold their Autumn Sale of Australian Native Plants on **Saturday 19th April 2008** from **9 am to 3 pm** at the **Grovely TAFE**. A wide range of Native Plants will be on sale - Rare - Old Favourites - Grafted Unusual - Drought Tolerant - Bird, Frog or Insect Friendly. The prices are friendly too. Admission FREE. For more information - call 3870 8517 or 3289 2466 or visit SGAP Qld Region 'on line'- www.sgapqld.org.au.

Indigi Day Out – 7th and 8th June 2008 – Discover the wonders of IndigiScapes on this fun-filled family weekend. There will also be many wildlife displays and mini workshops plus a music festival.

BUTTERFLY AND OTHER INVERTEBRATES CLUB PROGRAMME

A visit to Brisbane Forest Park - Sunday 16th March 2008 (see Dec. 2007 Newsletter for details)

Annual General Meeting

What: Our Annual General Meeting and election of Office Bearers. This will be followed by a walk through the Display Gardens attached to the Centre. IndigiScapes Tea Gardens cater for delicious morning teas, lunches, and afternoon teas at a very reasonable cost if you wish to partake before or after the meeting.
When: **Saturday 19th April, 2008** from 1-2pm for the AGM
Where: Redlands IndigiScapes Centre, 17 Runnymede Road, Capalaba
Contact: Daphne 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

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Planning and Management Meeting

What: Our planning meetings are informative and interesting. As well as planning our activities we share lots of information. All members are welcome as this activity is also a general meeting of members.
When: **Saturday, 10th May, 2008** at 2 pm
Where: Janet's home at Wishart – address supplied on RSVP
Contact: Janet on 3343 3949 or Daphne 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

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Boondall Wetlands

What: We will be exploring a range of various wetland habitats along the Osprey track.
When: **Saturday, 17th May, 2008** from 10 am
Where: Turn off the Gateway Arterial to the Boondall Wetlands Centre. Meet near the picnic area .
Bring: Hat , camera (optional) , lots and lots of insect repellent, your own food and drink
Contact: Daphne 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

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Indigi Day Out (see Other Groups' Activities for details)

What: We will be holding a display with mini workshops on butterflies and native bees
When: **7th and 8th June, 2008** from 9am to 4 pm
Where: Redlands IndigiScapes Native Botanic Gardens, 17 Runnymede Road, Capalaba
Contact: Daphne 3396 6334 or email bowden@itconnect.net.au for more details or IndigiScapes on 3824 8611

If you plan to attend one of the above events, please contact the person indicated in case, for some unforeseen circumstance, the event has had to be postponed or cancelled.

DISCLAIMER

The Newsletter seeks to be as scientifically accurate as possible but the views, opinions and observations expressed are those of the authors. The Newsletter is a platform for people to express their views and observations. These are not necessarily those of the BOIC. If inaccuracies have inadvertently occurred and are brought to our attention we will seek to correct them in future editions. The Editor reserves the right to refuse to print any matter which is unsuitable, inappropriate or objectionable and to make nomenclature changes as appropriate.

ACKNOWLEDGMENTS

Producing this newsletter is done with the efforts of:

- Those members who have sent in letters and articles
- Lois Hughes who provides illustrations including the cover
- Daphne Bowden who works on layout, production and distribution
- John Moss and Martyn Robinson for scientific referencing and proof reading of various articles in this issue of the newsletter
- Helen Schwencke for conceiving the original idea for a Newsletter

We would like to thank all these people for their contribution.

ARE YOU A MEMBER

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible.

Membership fees are $15.00 for individuals and $20.00 for families, schools and organizations.

Would you please advise bowden@itconnect.net.au if you get or change an email address.

Butterfly and Other Invertebrates Club Inc.
PO Box 2113
RUNCORN Q. 4113

Forthcoming events – Brisbane Forest Park – Sunday 16th March
Annual General Meeting – Saturday 19th April
See programme for details